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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,142	03/29/2001	Alireza Raissinia	CISCP674	8677
26541	7590	04/21/2005	EXAMINER	
RITTER, LANG & KAPLAN P.O. BOX 2448 SARATOGA, CA 95070			LY, ANH VU H	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

2X

Office Action Summary	Application No.	Applicant(s)	
	09/823,142	RAISSINIA ET AL.	
	Examiner	Art Unit	
	Anh-Vu H Ly	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This communication is in response to applicant's amendment filed November 01, 2004.
Claims 1-24 are currently pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonas et al (US Pub 2002/0036985 A1) in view of Scheibel, Jr. et al (US Patent No. 6,212,240 B1).

Hereinafter, referred to as Jonas and Scheibel.

With respect to claims 1, 3, 5, 7-8, 11, 13-16, 18, 20, and 22-24, Jonas discloses in Figs. 1 and 2, a point to multipoint DOCSIS system comprising a head-end communicating with a plurality of end-points (a point to multipoint network operating according to a DOCSIS based MAC protocol). Jonas discloses in page 1, 14th and 15th, that the head-end (central access point) periodically transmits information regarding available upstream channels and their parameters on the downstream channel (prior to the directed grant slot, broadcasting another MAP message allocating directed grant slot to the subscriber unit). The head-end (central access point) transmits the time interval allocations (allocated slot) on the downstream channel in a message called MAP. A single MAP message describes time interval allocation on a single upstream channel for a specific period of time. This means that the end-point transmits data only during

the allocated time intervals after submitting an access request (transmitting data to a central access point during a directed grant slot allocated to the subscriber). Jonas does not disclose monitoring MAP messages broadcast by the central access point to detect acknowledgement of receipt of data transmitted during the directed grant slot; if no acknowledgement of receipt of the data transmitted during the directed grant slot is indicated by MAP messages, retransmitting the data; and after transmitting data to central access point during the directed grant slot, storing the data in ARQ buffer for retransmission.

Scheibel discloses (col. 3, lines 18-41) that the target device 101 then transmits an acknowledgement (considered as MAP message) to the sending device 107 via a radio communication resource 104, wherein the acknowledgment indicates a quantity of data blocks that were not received (no acknowledgment of receipt of data transmitted during directed grant slot) by the target communication device 101. The receiver 112 then receives the acknowledgment (MAP message) from the target communication device (monitoring MAP messages broadcast by central access point to detect acknowledgment of receipt of data transmitted during the directed grant slot). Then a determination is made whether to retransmit the un-received data blocks (data is already stored in the ARQ buffer for possible retransmission) (no acknowledgement for the quantity of data blocks) at first modulate rate or second modulation rate (if no acknowledgement of receipt of data transmitted during the directed grant slot is indicated by MAP messages, retransmitting the data).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the features of receiving acknowledgement messages and

retransmitting previous sent data in Jonas' system, as suggested by Scheibel, to achieve some level of reliable data transfer.

With respect to claims 2, 9, and 17, Jonas discloses in Figs. 1 and 2, a point to multipoint DOCSIS system comprising a head-end communicating with a plurality of end-points. Jonas does not disclose wherein non-receipt is indicated by MAP messages if a MAP message is received with a timestamp later than directed grant slot and no acknowledgement is received. Scheibel discloses in Fig. 2, that the acknowledgment message is received at the receiver after (MAP message is received with the timestamp later than directed grant slot) the target device receives all or a portion of the data blocks. Herein, the acknowledgment message indicates the quantity of data blocks that were not received (no acknowledgment for that quantity of data blocks). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the features of receiving acknowledgement messages and retransmitting previous sent data in Jonas' system, as suggested by Scheibel, to achieve some level of reliable data transfer.

With respect to claims 4, 6, 10, 12, 19, and 21, Jonas discloses in Figs. 1 and 2, a point to multipoint DOCSIS system comprising a head-end communicating with a plurality of end-points. Jonas does not disclose storing data comprising storing data only if communication of data is delay tolerant. Scheibel discloses in Fig. 2, a block diagram depiction of messages exchanged by two communication devices for delay tolerant data. It would have been obvious to one having ordinary skill in the art at the time the invention was made to implement ARQ scheme in Jonas'

system, as suggested by Scheibel, since retransmissions on sensitive data and delay intolerant such as voice and/or real-time multimedia are not tolerated.

Response to Arguments

3. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kang et al (US Patent No. 6,615,382 B1) discloses method for controlling errors in link layer in wideband wireless communication and computer readable medium therefor.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

avl



CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2667

4/18/05